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**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Docket Number (Optional)

2743-0174PUS1

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on \_\_\_\_\_

Signature \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Application Number

10/550,022

Filed

September 23, 2005

First Named Inventor

Hyun-Kyo KIM

Art Unit

1791

Examiner

SCHATZ, Christopher

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

 applicant/inventor. assignee of record of the entire interest.  
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
(Form PTO/SB/96) attorney or agent of record.

39538

Registration number \_\_\_\_\_

Signature

James T. Eller, Jr.

\_\_\_\_\_  
Typed or printed name

703-205-8000

Telephone number

 attorney or agent acting under 37 CFR 1.34.

April 13, 2010

Registration number if acting under 37 CFR 1.34 \_\_\_\_\_

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.  
Submit multiple forms if more than one signature is required, see below\*.



\*Total of \_\_\_\_\_ forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Patent Application of:

Hyun-Kyo KIM

Application No.: 10/550,022

Confirmation No.: 3847

Filed: September 23, 2005

Art Unit: 1791

For: ANTIBIOTIC METHOD FOR PARTS OF  
REFRIGERATOR USING ANTIBIOTIC  
SUBSTANCE

Examiner: SCHATZ,  
Christopher

**REQUEST FOR PRE-APPEAL CONFERENCE**

**MS Appeal**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Applicants request review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed concurrently with a Notice of Appeal.

The claims recite an antibiotic material having 60-80% an oxide of silver ions, 10-20% zinc oxide and 10-20% zirconium phosphate. As explained in the specification, the zinc oxide and zirconium phosphate provide a matrix to keep the oxides of silver ions stable throughout the manufacturing process. The prior art does not disclose or suggest the claimed antibiotic material.

The Examiner relies upon a combination of Niira et al. and Myers et al. to reject the claimed antibiotic material. The other references relied upon by the Examiner are unrelated to the antibiotic material and are not discussed further.

Both Niira et al. and Myers et al. disclose the use of zeolite as an antibiotic material. Zeolites have the chemical formula of  $\text{XM}_{2n}\text{-Al}_2\text{O}_3\text{-YSiO}_2\text{-ZH}_2\text{O}$  wherein X is a metal oxide. Niira et al. discloses a Reference Example of an antibiotic zeolite material in column 7. As stated in column 7, lines 33-34, "the antibiotic zeolite thus obtained included 2% Ag, 5% Zn and 4% NH<sub>4</sub>." The amount of silver is far below the claimed amount and there is two and a half times the

amount of zinc as silver in the disclosed zeolite. The Examiner relies upon Myers et al. for disclosing the use of zinc oxide, zirconium phosphate and as a basis for asserting that the percentages of the claimed components are obvious as a matter of routine experimentation.

Myers et al. discloses an antibiotic material formed from particles having a core of metal-supporting component oxides and zeolites, including oxides of titanium, aluminum, zinc and copper, zeolites, talc, silica and zirconium phosphate. (See paragraph 90064). The particles have a primary coating of at least one metal or metal compound having antimicrobial properties, including zinc or silver. The primary coating is about 0.05 – 20% by weight based on the core particles (paragraph [0067]). A secondary, protective coating is selected from the group including zinc oxide (paragraph [0068]). Most relevant is the last sentence of paragraph [0067] which reads “Preferably the amount of antimicrobial component on or in the core particle is at most about 20% by weight, more preferable at most 15% by weight, and most preferably at most about 10% by weight. Clearly, Meyers et al. does not disclose the claimed percentages of the three components recited in the claims.

Paragraph [0074] of Myers et al. states that the inorganic antibiotic particle is an antibiotic zeolite, paragraph [0078] further defining the antibiotic zeolite as having ion-exchangeable ions, such as sodium ions and potassium ions, that are partially or completely ion-exchanged with antibiotic metal ion such as silver, copper or zinc ions or mixtures thereof. Paragraphs [0081] and [0082] merely state that the amount of metal in the metal zeolite might vary depending on the metal used and specifically refers to an amount of 20% by weight or less is silver alone if used or 25% by weight or less for zinc or cooper. Nothing in the paragraphs suggests the amount of silver can be varied over a wide range and concerns only the amount of metal in the zeolite, not the amount of metal oxide in the antibiotic material. While this teaching may be used to modify the zeolite disclosed by Niira et al., there is no basis for the position that the combined teachings of Niira et al. and Myers et al. render the claimed invention obvious. The disclosure of paragraphs [0081] and [0082] does not trump Myers et al.’s own disclosure that the amount of antibiotic material is at most 20% by weight.

Neither reference, taken alone or in combination, provides one of ordinary skill in the art with a starting point to obtain a material having 60-80% of an oxide of silver ions, 10-20% zinc oxide and 10-20% zirconium phosphate through routine experimentation. The use of zeolites by

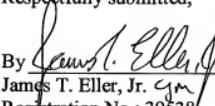
both Niira et al. and Myers et al. do not provide one of ordinary skill in the art a basis to obtain the claimed antibiotic material through routine experimentation, as alleged by the Examiner.

It is respectfully requested that the rejections be withdrawn and the application allowed.

If necessary, the Director is hereby authorized in this, concurrent, and future replies to charge any fees required during the pendency of the above-identified application or credit any overpayment to Deposit Account No. 02-2448.

Dated: April 13, 2010

Respectfully submitted,

By   
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